



Music and Movement and ... Foreign Language Acquisition

Full Research Booklet

Ages 2 to 7 years old

Introduction: The Importance of Starting a Foreign Language Early

The earlier children are involved in learning a second language, the more natural it is for them to understand and speak the language. There is a developing awareness of the importance of introducing foreign language instruction at the youngest possible age. Recent research indicates that a baby has the ability to learn any of the world languages. Linguist Patricia Kuhl ascertained this conclusion based upon brain measures in the form of electrophysiological scans (ERPs) (Kuhl, 2008).

Kuhl documents the transformation that occurs between eight and ten months of age as infants learn to “take statistics” from the language to which they’re exposed, already beginning to determine which sounds are linguistically significant and which are not. Adults are culture-bound listeners, but a six-to-eight month old baby can discriminate any sound in any language. In addition, new technology further verifies an already accepted premise that only human speech can trigger language discrimination. When exposed to a new language for the first time at nine months, infants will learn phonetically from a live, interacting human being, but not from a disembodied source, such as audio or television, even though the acoustic information remains the same in both situations (Kuhl, 2008).

International examples abound as English language learners in many countries begin their foreign language education as early as fifteen months. In France, the Education Minister suggested in January of 2011 to have children at age three begin English education in *Maternelle*, or nursery school.

The most effective approach to facilitate English Language Learning (ELL) for very young children (VYC) is the “Natural Approach” (Terrell & Krashen, 1983). Its important underlying principle is an emphasis on language “acquisition” as opposed to language “processing.” The child is encouraged to speak and think in the second or foreign language, and this takes precedence over analytical processing of formal language structure and syntax.



Meaning is considered the essence of language, and vocabulary, not grammar, the heart of language. Emphasizing the need to make children as comfortable as possible during the learning process, a wide range of activities including Music, Focused Listening, Movement (Total Physical Response – TPR), and Storytime are incorporated into the curriculum. TPR research introduced the concept that for children to acquire another language, success is assured if comprehension is developed before speaking. As with the use of images, such as picture flash cards to illustrate words like *cow* and *duck*, movement is incorporated to internalize meaning for words such as *stand*, *sit*, etc. In the process of achieving fluency with TPR, “[children] internalize everything simultaneously, with no analysis, in the same way they acquire their first language” (Asher, 2007).



Research Into Practice: *ABC English & Me*

ABC English & Me naturally evolved from Kindermusik educators’ vast teaching experience in non-English speaking countries around the world. VYC are not only learning musical skills—listening, coordination, rhythm, following a steady beat, singing—but are also acquiring a variety of language skills in English: following instructions, understanding vocabulary, speaking interactively, singing, and repeating nursery rhymes and poems.

Listening Skills

A child’s ear is the primary organ for hearing and language development, serving as both the center of balance and muscular coordination. Human fetal studies indicate that the vestibular system (movement function) grows first, and the cochlear system (hearing function) develops later. The two systems then link together in one integrated structure combining the two basic intelligences of sound, musical and linguistic, with movement.

Listening is the first language mode that children acquire, and it provides a foundation for all aspects of language and reading development. As Jensen (2001) rightly explains: “We hear with our ears and listen with our brain.... Listening is an active and refined skill set, while hearing is a passive experience.”

Listening is a very large part of school learning, with students spending an estimated 50–75% of classroom time listening to the teacher, to other students, or to media (Smith, 1992). Teachers of VYC incorrectly assume that when children can hear them without disruption,

their students are listening. As a result, many children do not develop the listening skills necessary to acquire new knowledge and information. Listening is often considered an innate competence, but cultivating listening skills requires explicit instruction.

Just as poet Dylan Thomas so clearly expressed, “The first poems I knew were nursery rhymes, and before I could read them for myself I had come to love just the words of them, the words alone. What the words stood for, symbolized or meant was of very secondary importance –what mattered was the very sound of them as I heard them for the first time.... And those words were, to me, as the notes of bells, the sounds of musical instruments, the noises of wind, sea, and rain....” His father read poetry to him as early as the age of two.

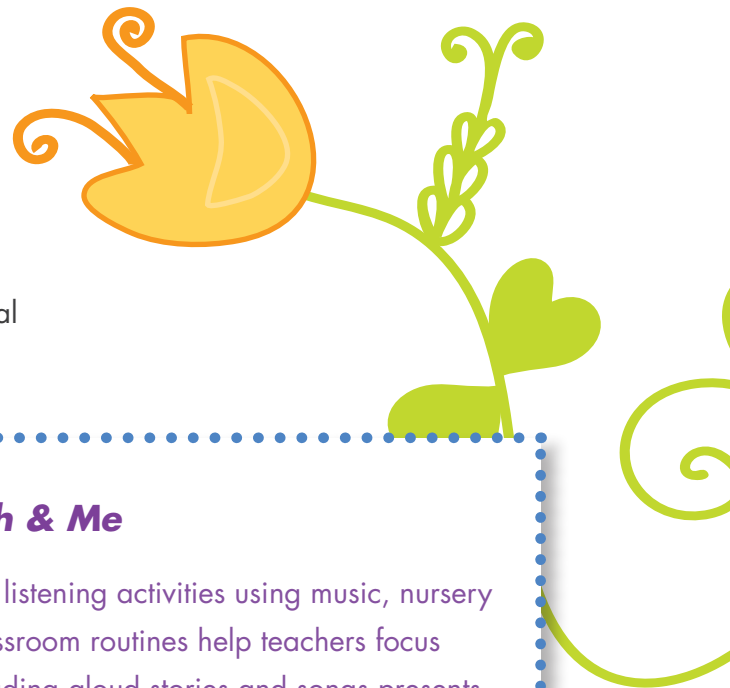
When stories are read *expressively* to VYC by a teacher, the association of foreign words nourishes both language development and listening skills in the new language. The alien sounds of spoken and sung English, through repetition, become recognizable at first and subsequently comprehended.

A child’s ability to hear spoken words with appropriate expressiveness is the beginning of any language development. It is that expressiveness that plants the seeds for understanding the meaning of the words in the songs in the curriculum. The words are simple and repetitive, such as the hello and goodbye songs at the beginning and end of each class. Books with rhythmic text also provide the child with an interesting listening experience even if the words are not understood. Meaning for children is secondary and is acquired subsequently.



Imagine a child who does not speak English. She participates in the playing of instruments and movement, and although not understanding the verbal commands, follows the example of the teacher, reinforced by the actions of her peers. Imagine that same child, participating in a song or listening to a story read aloud by the teacher. She initially does not understand the vocabulary, as even native English-speaking children of her age group might not understand some of the words. Edwin E. Gordon, in his book *A Music Learning Theory for Newborn and Young Children*, states that “soon young children ‘break the code’ of the language...and begin to imitate real words. By using those words to communicate with others, they soon learn to create their own phrases and sentences. Later they learn to read and write words and sentences that they have heard and spoken. The whole process of the sequential development of the four vocabularies—listening, speaking,

reading, and writing, in that order—begins at birth and continues until after children enter first grade. Unless such a process, which develops through both structured and unstructured informal guidance, *occurs early in life*, children will not have the necessary readiness to profit from formal language instructions” (Gordon, 1997).



Research Into Practice: ABC English & Me

Each unit of *ABC English & Me* includes focused listening activities using music, nursery rhymes, non-musical sounds, and language. Classroom routines help teachers focus children’s attention on listening to directions. Reading aloud stories and songs presents children with opportunities to practice listening to extended discourse.

Music Effects on Phonological and Phonemic Development

To acquire a language, infants have to discover which phonetic distinctions will be utilized in the language of their culture. An example is the major differences between English and Japanese. The phonemes /r/ and /l/ create different words in English (*rake* and *lake*) but do not change the meaning of a word in Japanese (Kuhl et al, 2006).

Early in life, infants discriminate among virtually all the phonetic units of the world’s languages (Eimas et al, 1971; Streeter, 1976; Trehub, 1976; Werker & Tees, 1984; Best & McRoberts, 2003; Kuhl et al, 2006). Research shows that as we reach adulthood, such universal phonetic capacity diminishes, and foreign phonetic discrimination becomes more difficult.

“Finger plays, traditional nursery rhymes and songs...reinforce phonemic awareness and the systematic relationship of letters of the alphabet and the sounds connected to each letter” (Hansen, Bernstorf & Stuber, 2004).

It helps to understand the similarities between music and language in children’s development of phonological awareness. Music comprises a series of discrete musical notes, or tones, while spoken language comprises a stream of connected phonemes.

Hearing music requires listening for the individual notes combined with their rhythmic values; understanding a spoken sentence requires successful auditory processing of the

individual phonemes combined with the intonation communicated by pitch. Because of these fundamental similarities, the human brain processes music and language in similar ways.

Musical instruction can have an exciting impact on young children's phonological awareness, as many respected educational researchers recommend integrating music into phonological awareness instruction. These researchers recommend songs, specifically rhyming songs, as an effective mechanism for building phonemic awareness with children in early childhood classrooms (Adams, Foorman, Lundberg & Beeler, 1998; Ericson & Juliebo, 1998; Yopp & Yopp, 1997).

A study by Stanford researchers (Gaab et al, 2005) found that musical training improves how the brain processes the spoken word. In particular, the research found that musical instruction and experience help the brain improve its ability to distinguish between rapidly changing sounds, referred to as auditory processing. This auditory processing is critical to developing phonemic awareness, a necessary aspect of foreign language acquisition.

Beyond integrating songs into early literacy instruction, recent brain and other educational research suggests that providing young children with music instruction builds essential brain functioning leading to increased growth in phonemic awareness.

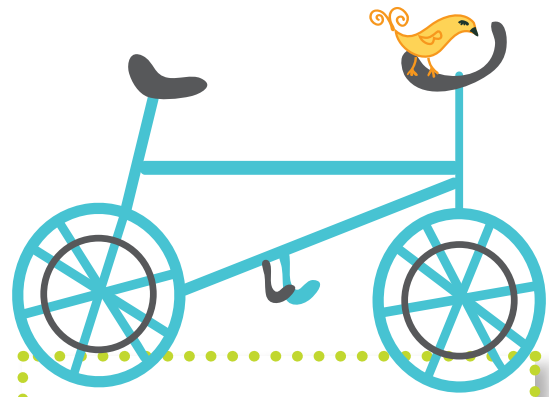
Building an understanding of the sounds within words must begin with an ability to discriminate similarities and differences in sounds. Not surprisingly, then, researchers have found a link between musical pitch discrimination and reading ability in young children.

First grade children were tested on both phonemic awareness and musical pitch awareness. The researchers found a high degree of correlation between phonemic awareness and pitch discrimination. The ability to perceive slight differences in phonemes appeared to depend on the ability to extract information about the frequencies of the speech sounds. Singing provides



VYC an opening to the world of phonemes. Rhyming lyrics and repeating verses contribute to language play, or language development. Researchers have proposed that “carefully structured musical training should be an essential component of the primary school curriculum” (Lamb & Gregory, 1993).

A second study confirmed the correlation between phonological awareness and musical aptitude as measured by pitch awareness. VYC completed both phoneme manipulations and deletion tasks and musical aptitude tests. Those children with higher levels of musical aptitude had greater ability with phoneme manipulations, showing that such success in manipulating language sounds was related to awareness of distinct musical sounds (Peynircioglu et al, 2002).



Research Into Practice: ABC English & Me

Within *ABC English & Me*, teachers use songs with rhyming lyrics and nursery rhymes to help children build phonological awareness. VYC increase their phoneme capacity as phonetic discrimination becomes more difficult when children grow older.

Music Effects on Language Development

“Music is unique to humans and, like the other arts, is as basic as language to human development and existence” (Gordon, 1997).

Having presented the case for early education of ELLs, along with the necessity for human teachers, the research and benefits of incorporating music and movement into the early childhood foreign language classroom are examined below. Music is incorporated not only for the value of the musical experience itself, but also because of the impact music and musical instruction can have on VYC’s acquisition of a second language and early literacy (Gardner, 1983).

Research Into Practice: ABC English & Me

Music has structure and rules as does language, ensuring that words are sequenced in a predictable order. *ABC English & Me* also incorporates music to encourage VYC in turn-taking activities, as in conversation.

Effects on Building Vocabulary for VYC ELLs

Children who hear English words, even without grasping their meaning, will develop an ear for the language, especially if it is heard musically. During the preschool years, children rely almost exclusively on the oral language they listen to in order to acquire language. *ABC English & Me* classes provide an environment rich in delightful music and language, enabling the VYC to develop an ability to eventually understand and appreciate the sounds of English.

Even as children attend elementary school, only a portion of the vocabulary words they learn are the result of explicit instruction (Nagy & Herman, 1987). Research shows that stories read aloud are effective sources of new vocabulary for young children (Beck & McKeown, 2001).

Research from the field of second language acquisition supports the hypothesis that song lyrics are a source of incidental acquisition of new vocabulary. Medina (1993) studied the effects of music on the acquisition of English vocabulary in a group of 48 second-grade children with limited English proficiency. Vocabulary gain scores were consistently higher for the groups in which either music or illustration were used, and highest for the group in which both were used.

Many educational researchers promote music as a way to enhance vocabulary acquisition and comprehension, and they emphasize music's ability to engage children in instruction (Fountas & Pinnell, 1999; Miller & Coen, 1994; Page, 1995; Smith, 2000; Wiggins, 2007). What appears to be group participation among peers in music instruction is actually a sequential methodology that takes children joyfully forward on a path to foreign language acquisition.



Research Into Practice: *ABC English & Me*

In every unit of *ABC English & Me*, children hear stories read aloud and sing songs that include new vocabulary words. Stories are accompanied by beautiful illustrations to engage the children further. Research supports these practices as effective sources of implicit vocabulary acquisition. Explicit instruction in musical terms is included in each unit of the program for older children. Words essential to the unit's theme are included on picture cards along with recommended instructional strategies for ELLs, expanding the possibilities for vocabulary acquisition.

Music Recommended to Engage Families in Learning

Decades of research have demonstrated the positive impact that parent and family involvement can have on student outcomes related to learning, literacy, and school success (Faires et al, 2000; Hara & Burke, 1998). Involvement by parents and family members in early childhood programs has proved to help children succeed in their transition to kindergarten and elementary school (Kreider, 2002; Marcon, 1999), including positive results for children from inner cities (Miedel & Reynolds, 1999).

Parental involvement has a positive impact on literacy acquisition, according to a meta-analysis of 14 high-quality experimental studies by Senechal (2006). A separate meta-analysis (Bus et al, 1995) showed a statistically significant link between parent-child book reading at home and reading acquisition for young children ages three to eight. Yet a third meta-analysis (Scarborough et al, 1994) showed correlations between parent-preschooler reading and reading achievement in grade school. Researchers recommend music as another effective means of engaging families in important home learning to build early literacy and language development (Harvard Family Research Project, 2002; Rathbun & Hausken, 2001; Stone, 1999).

Music is cited as particularly effective for engaging families of ELLs (NY State Education Department, 1998) and to enhance children's multicultural development (Swick et al, 1995).



Research Into Practice: *ABC English & Me*

The parent is the first and most important teacher, and *ABC English & Me* provides at-home materials that not only strengthen the bond between parent and child, but also further reinforce the child's confidence in participating in the classroom. *ABC English & Me* gives families interactive tools to engage parents and caregivers in building children's early English language skills as recommended by researchers. Resources for each family include an online magazine with fun English language learning activities; a tale for reading aloud at home; downloadable songs and rhymes; listening activities; and a recording of the story read in English.

Summary

Scientific research strongly supports the use of music in VYC education, providing evidence for the positive impact of music instruction on early language skills. Recent scientific investigation indicates that music instruction improves phonemic awareness, verbal memory, and vocabulary. Such improvements in brain functioning related to these areas are the source of correlations between music ability and foreign language acquisition; thus music may well have specific positive impact on children who are ELLs. “The implication for schools is that music instruction, while valuable for liberating the artistic and musical potential of every child, may significantly enhance children’s language literacy as well” (Gromko, 2005).



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